

REMARKS

Claims 1 and 3-25 were pending in the instant application and were rejected by the Examiner. Claims 1, 4, 15, 18, 20-23 and 25 have been amended. Accordingly, claims 1 and 3-25 are presented and at issue. The Applicants submit that claims 1 and 3-25 are in condition for allowance and request reconsideration and withdrawal of the outstanding rejections. No new matter has been entered.

Claim Rejections Under 35 USC § 112

Claims 1 and 3-25 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. According to the Examiner, the claims allegedly contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. More specifically, the Examiner alleged that it was unclear as to how applicants' feature of attaching a chemical substituent to a chemical backbone structure as recited in claims 1, 15, 18, 20-23 and 25 would be realized. Additionally, with respect to claim 4, the Examiner alleged that it was unclear as to how applicants' claimed feature of determining permissible relationships would be realized. Hence, the Examiner reasoned that a skilled artisan would not know how to make and/or use the claimed subject matter without undue experimentation. To clarify matters, this feature is provided by user selection of a substituent from a menu of substituents for attachment to a prespecified attachment point of a chemical backbone structure.

In view of the Examiner's rejection, Claims 1, 15, 18, 20-23 and 25 have been amended to specify "a backbone menu that includes graphical representations for a plurality of chemical backbone structures each including at least one prespecified attachment point to which a user-selectable chemical substituent may be attached; each of the plurality of chemical backbone structures being associated with a corresponding substituent menu including a plurality of chemical substituents, any of which are user selectable for attachment to at least one prespecified attachment point of said chemical backbone structure such that, upon user selection of at least

one chemical substituent from the substituent menu for attachment to at least one prespecified attachment point, a custom chemical design structure is specified.” Additionally, claim 4 has been amended to replace the phrase “permissible location” with “attachment point” to provide consistency with claim 1.

The foregoing features are discussed in paragraphs [0040]-[0041] and [0045] to [0048] of Applicants’ disclosure. These features are also illustrated in FIGs. 4-5 and 10-13. No new matter has been added. Accordingly, it is submitted that claims 1, 4, 15, 18, 20-23 and 25 have been redrafted to meet all applicable requirements of 35 U.S.C. §112. It is further submitted that the claims depending therefrom, namely, claims 3, 5-14, 16, 17, 19, and 24 meet all applicable requirements of 35 U.S.C. §112 for the reasons discussed above in connection with claims 1, 4, 15, 18, 20-23 and 25.

Claim Interpretation

The Examiner alleged that the invention’s actual implementation of the claimed features relating to the user interface, database, graphical representation of chemical structures, and multi-dimensional graphics component and have not been sufficiently described in the specification. Therefore, for purposes of art rejections, the examiner assumes that these features have been implemented using one the popular commercially available chemical structure drawing software packages such as ChenDraw, Chem Window, ISIS/Draw, or ChemSketch. However, the Examiner’s position is incorrect with regards to the user interface, database, and graphical representation of chemical structures. These items are clearly and unambiguously depicted in FIGs. 4, 5, and 10-13, and clearly and unambiguously described in paragraphs [0040]-[0041] and [0045] to [0048] of Applicants’ specification. Similar features have not been implemented with any of the popular commercially available chemical structure drawing software packages such as ChenDraw, Chem Window, ISIS/Draw, or ChemSketch.

Claim Rejections Under 35 USC § 103

This application names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumed that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. This is to confirm that the Examiner's presumption regarding joint inventors is correct.

Claims 1-4, 6, 7, and 12-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication 2002/0129004 A1 issued to Bassett (hereinafter, Bassett) et al in view of "ADC/Chem Sketch;" Version 5.0 Users Guide, Advanced Chemistry Development Inc., 2001 (hereinafter, ChemSketch). Claims 5 and 8-11 were rejected under 35 U.S.C. 103(a) as being unpatentable further in view of "Introducing Macromedia Flash 5", D. Cook, PC Support Advisor Update 150, PP. 9-12, May 2001 (hereinafter, Flash).

Applicant traverses these rejections for the following reasons. The obviousness rejection is improper as Bassett, ChemSketch, and Flash fail to teach or suggest each and every element of the instant invention. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

Independent claims 1, 15, 18, 20-23 and 25 recite, *inter alia*, "a backbone menu that includes graphical representations for a plurality of chemical backbone structures each including at least one prespecified attachment point to which a user-selectable chemical substituent may be attached." These claims further recite "each of the plurality of chemical backbone structures being associated with a corresponding substituent menu including a plurality of chemical substituents, any of which are user selectable for attachment to at least one prespecified attachment point of said chemical backbone structure such that, upon user selection of at least one chemical substituent from the substituent menu for attachment to at least one prespecified attachment point, a custom chemical design structure is specified." These limitations are discussed in Applicant's specification at

paragraphs [0040]-[0041] and [0045]-[0048], and also in FIGs. 4, 5, and 10-13.

Applicant respectfully submits that independent claims 1, 15, 18, 20-23 and 25 are allowable for at least the reason that Bassett, ChemSketch, and Flash all fail to disclose or suggest “a backbone menu that includes graphical representations for a plurality of chemical backbone structures each including at least one prespecified attachment point to which a user-selectable chemical substituent may be attached.” Moreover, Bassett, ChemSketch, and Flash all fail to disclose or suggest “each of the plurality of chemical backbone structures being associated with a corresponding substituent menu including a plurality of chemical substituents, any of which are user selectable for attachment to at least one prespecified attachment point of said chemical backbone structure such that, upon user selection of at least one chemical substituent from the substituent menu for attachment to at least one prespecified attachment point, a custom chemical design structure is specified.” I

Bassett teaches utilizing one or more wizard tools for performing various processes. The Examiner states that Bassett does not teach the features related to a graphical representation of a chemical design structure. However, the Examiner introduces ChemSketch as allegedly teaching these features. The ChemSketch reference is a one hundred and fifteen page User's Guide for providing detailed instructions on the use of the product. The product, ChemSketch, is a software program for drawing chemical structures and graphical images (front page of ChemSketch). The detailed instructions provided in the User's Manual guide a user through a complex, labor-intensive process of drawing structures, element by element (e.g., atoms, bonds, labels, etc.). Even simple structures require extensive operation on the user's side. For example, see Chapter 3—Drawing Simple Structures, a user is provided with no less than seven steps in creating the simplest structure (pages 13-14). Complex structures require even more extensive operations on the user's part. This is precisely the type of scenario that the Applicants' invention seeks to avoid. As recited in claim 1, the user is provided with pre-defined chemical backbone structures, whereby the user builds upon the structures using pre-defined, database driven sub-components (e.g., chemical substituents and chemistries) that are easily attached to the backbone to create a customized structure. Nowhere in ChemSketch does such a feature exist.

In view of the foregoing analysis, a *prima facie* case for establishing an obviousness rejection of independent claims 1, 15, 18, 20-23 and 25 based upon the proposed combination of Bassett and ChemSketch has not been made. Moreover, a *prima facie* case for establishing an obviousness rejection of dependent claims 5 and 8-11 based upon Bassett, ChemSketch and further in view of Flash has not been made. Therefore, the rejection of claims 1, 5, 8-11, 15, 18, 20-23 and 25 should be withdrawn.

Claims 3, 5-14, 16, 17, 19, and 24

Because independent claims 1, 15, 18, 20-23 and 25 are allowable over the cited art of record, dependent claims 3, 5-14, 16, 17, 19, and 24 are allowable as a matter of law for at least the reason that the dependent claims contain all features of the corresponding independent claim and any intervening claims. For at least this reason, the rejections of claims 3, 5-14, 16, 17, 19, and 24 should be withdrawn.

CONCLUSION

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be deemed allowable. Accordingly, reconsideration and allowance is requested. It is submitted that the foregoing amendments and remarks should render the case in condition for allowance.

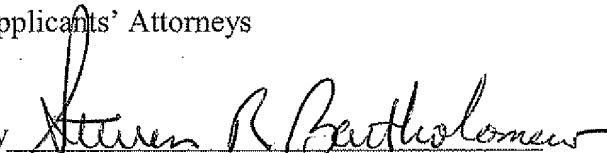
Accordingly, as the cited references neither anticipate nor render obvious that which the applicant deems to be the invention, it is respectfully requested that claims 1 and 3-25 be passed to issue.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,
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